AMENDMENT TO THE CLAIMS:

Please amend claims 1-5 and please add new claims 6-15 as follows:

1. (Currently Amended) Process for transmitting data in either direction between a first data transmission device (1) connected to a first network (2) for transmission by packets, of the cellular telephone type, and a second transmission device (7) connected to a second network (6) for transmission of data by packets, of the INTERNET type, each packet of one and the other of the networks (2, 6) comprising a field of useful data (16, 18) and a signalling field (17, 19), the process being characterised in that the two networks (2,6) ~~being~~ are connected by a gateway (3, 4, 5) for data adaptation and for controlling routing on the two networks (2, 6), ~~the~~ with data in two packet fields (18, 19) in packets that are communicated on ~~of~~ the second network (6) ~~are~~ being transported on the first network (2) respectively ~~into the~~ within two counterpart packet fields (16, 17) of packets that are communicated on the first network (2).

2. (Currently Amended) Process according to claim 1, wherein code words representing signalling of the second network (6) are added as data ~~to the signalling of~~ in the packets ~~of~~ that are communicated on the first network (2).

3. (Currently Amended) Process according to ~~one of claims~~ claim 1, wherein the data packet fields for signaling data on the second network are limited in size and configuration to the size and configuration of the packet fields on the first network, and wherein in order to transport the signalling (19) of the packets of the second network (6) into those of the first network (2), code words of ~~this latter~~ the first network, which have no use in connections between two such networks (2, 6), are not included in packets on the first network ~~reused~~.

4. (Currently amended) Process according to ~~one of~~ claim 1, wherein the data are transmitted between a first, GSM network (2) and a second, INTERNET network (6), by accommodating INTERNET addresses in the signalling field of SMS packets.

5. (Currently amended) Process according to claim 1 ~~one of claims 1~~, wherein at the gateway (4), the two packet fields of the second network (18, 19) are extracted from the packets coming from the first network (2) before the two packet fields of the second network are sent on the second network (6) in the form of a packet (20) of the second network (6).

6. (New) Process for transmitting data between a non-Internet network of a packet transmission type and an Internet, the process comprising:

communicating data in two packet fields (18, 19) in packets that are communicated on the Internet;

communicating data in two packet fields (16, 17) on the non-Internet network;

wherein a size and configuration of the two packet fields on the Internet is limited by the size and configuration of the two packet fields communicated on the non-Internet network; and

wherein data received in the two packet fields (16, 17) on the non-Internet network is transferred to the two packet fields (18, 19) on the Internet.

7. (New) Process according to claim 6, wherein code words representing signalling of the Internet are added as data in one of the two packet fields that are communicated on the non-Internet network.

8. (New) Process according to claim 6, wherein in order to transmit the signalling (19) of the packets of the Internet network (6) in the packets of the non-Internet network (2),

code words of said non-Internet network, which have no function in connections between two such networks (2, 6), are not included in data packets on the non-Internet network.

9. (New) Process according to claim 6, wherein the data are transmitted between the non-Internet network (2) and the Internet network(6), by inserting Internet addresses in a signalling field of one of the packets on the non-Internet network.

10. (New) Process according to claim 6, wherein at the gateway (4), the two packet fields (18, 19) of the Internet network 6 are extracted from the packets coming from the non-Internet network (2) before the two packet fields of the Internet are sent on the Internet (6) in the form of a packet (20) of the Internet (6).

11. (New) A gateway for transmitting data in data packets between a non-Internet network (2) and an Internet network (6), the gateway comprising:

routing circuits (3) for controlling routing of packets on the non-Internet network (2) and the Internet network (6);

transmission circuits (5) for transmitting and receiving packets on the non-Internet network (2) and the Internet network (6); and

adaptation circuits (4) connected to the transmission circuits (5) to receive and transmit data in packets to and from both the non-Internet network (2) and the Internet network (6),

wherein the adaptation circuits communicate data between two counterpart packet fields (16, 17) in packets communicated on the non-Internet network (2) and two respective packet fields (18, 19) in packets communicated on the Internet network (6).

12. (New) The gateway according to claim 11, wherein code words representing signalling of the Internet network (6)

are included in the data packets that are communicated on the non-Internet network (2).

13. (New) The gateway according to claim 11, wherein in order to transport the signalling (19) of the packets of the Internet network (6) into those of the non-Internet network (2), code words of said non-Internet network, which have no use in connections between two such networks (2, 6), are not included in packets on the non-Internet network.

B1 Cancel.

14. (New) The gateway according to claim 11, wherein the non-Internet network is a GSM network (2) and wherein Internet addresses are included in the signalling field of SMS packets on the GSM network.

15. (New) The gateway according to claim 11, wherein the two packet fields (18, 19) of the Internet network (18, 19) are extracted by the adaptation circuits from the packets coming from the non-Internet network (2) before the two packet fields of the Internet network are sent to the Internet network in the form of a data packet (20).